

# Photovoltaic PV1-F Solar Cable

pro-POWER

RoHS  
Compliant



## Application:

This solar cable is intended for the interconnection within photovoltaic systems such as solar panel arrays. Suitable for fixed installations, internal and external, within conduit or systems, but not direct burial applications. This solar cable is ozone-resistant according to BS EN 50396, UV resistant according to HD 605/A1, and is tested for durability according to EN 60216. The cable is designed to last at least 25 years. Being flame protected with a halogen free fire retardant system with low smoke properties these cables are designed for safety in case of fire.

## Construction:

### Conductor:

Class 5 flexible tinned copper conductor according to DIN VDE 0295, BS EN/IEC 60228

### Insulation:

Halogen-free cross-linked compound

### Sheath:

Halogen-free cross-linked, flame retardant compound Type EM4 according to BS EN 50363-2-1

## Cable Standards:

### UV Resistant

HD 605/A1

### Low Smoke Halogen Free

BS EN 50267-2-1, BS EN 60684-2, BS EN 61034, BS EN 50267-2-2

### Ozone Resistant

BS EN 50396

### Flame Retardant

BS EN/IEC 60332-1-2

### Thermal Endurance

BS EN/IEC 60216-1

## Characteristics:

### Voltage Rating (Uo/U)

AC : 600/1000V

DC : 900/1800V

### Temperature Rating:

Fixed : -40°C to +90°C

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## Minimum Bending Radius:

Fixed : 4 × overall diameter  
Flexed : 5 × overall diameter

## Maximum Voltage (U<sub>max</sub>)

1.8kV DC (conductor/conductor, non earthed system, circuit not under load)

## Maximum Conductor Temperature

+120°C (for 20,000h)

## Sheath Colour

Black

## Dimensions:

Part Number	No. of Cores	Nominal Cross Sectional Area mm <sup>2</sup>	Nominal Overall Diameter mm	Nominal Weight Kg/Km
PP000513	1	4	5.2	57
PP000514		6	5.9	79

## Conductors:

Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

Nominal Cross Sectional Area mm <sup>2</sup>	Maximum Resistance of Conductor at 20°C	
	Metal-Coated Wires Ω/km	
4	5.09	
6	3.39	

## Electrical Characteristics:

No. of Cores	Nominal Cross Sectional Area mm <sup>2</sup>	Current Rating
		In Air Amps
1	4	55
	6	70

Based on a 60°C ambient temperature

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## De-Rating Factors:

Air Temperature	Up To 60°C	70°C	80°C	90°C	100°C	110°C
De-Rating Factor	1.00	0.91	0.82	0.71	0.58	0.41

## Part Number Table

Description	Nominal Cross Sectional Area mm <sup>2</sup>	Reel Length	Part Number
Photovoltaic PV1-F Solar Cable	4	100m	PP000513
	6		PP000514

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